INDEX TO VOLUME 81 (JULY–DECEMBER 1955)

(Note: In all divisions of this index, the letter (L) following a title indicates a letter to the editors.)

Title Index of Articles and Letters

AAAS affairs: AAAS committees and representatives for 1955, 106; AAAS-Rosenthal award for cancer research, 56; Advantages of an Atlanta meeting, Board of Directors, 104; Amendments to the AAAS constitution, D. Wolfle, 317–318; Association finances, H. Nussbaum, 314–316; Cooperative Committee on the Teaching of Science and Mathematics, 109; Director for science teaching improvement program, M. H. Ingraham, 160; Hotel headquarters and housing, Atlanta meeting, R. L. Taylor, 104; Preliminary announcement of Atlanta meeting, R. L. Taylor, 51; Preview of 122nd meeting, Atlanta, Georgia, R. L. Taylor, 310–314; Theobald Smith award in the medical sciences, 108; Traveling science libraries for small high schools, J. A. Behnke, 159

Agricola's position in science, H. C. and L. H. Hoover, 253

Are there rules for writing history of chemistry? A. J. Ihde, 183

Beauty and the beast: life and the rule of order, P. Weiss, 286

Changing place of soils in agricultural production, R. W. Simonson, 173

City neighborhood and village, R. Neutra, 38

Climatic contrasts in the United States, S. S. Visher, 115

Concerning the nature and nurture of genius, S. L. Pressey, 123

Dandelions (L), M. J. Haga, 158

Does biology afford a sufficient basis for ethics? P. Romanell, 138

Ecological experimentation with animal populations, T. Park, 271

Effects of nuclear weapons testing, G. M. Dunning, 265

Equal temperament and the thirty-one-keyed organ, A. D. Fokker, 161

Feuerbach, Karl Wilhelm, mathematician, 71

Fortress city of Constantine, Algeria, B. E. Thomas, 130

Garter snake, the, C. C. Carpenter, 248

Herodotus on the subject matter of economics, J. J. Spengler, 276

Homeostasis, society, and evolution: a critique, J. Henry, 300

How does rock break? F. C. Bond, 196

Human background of Pacific science, A. Spoehr, 3

Improving science teaching, 109

International Geophysical Year, H. S. Jones, 94

Lettuce industry of the Salinas Valley, P. F. Griffin and C. L. White, 77

Lost art of Strad varnish, J. Michelman, 221

Medals of the Royal Society of London, E. F. Lange and R. F. Buyers, 85

Mendel and the rediscovery of his work, E. O. Dodson, 187

Modern science and refutation of the paradoxes of Zeno, A. Grünbaum, 234

More on air pollution (L), L. B. Hitchcock and H. G. Marcus, 158

One world—or two? (L), J. C. Crumbaugh, 212

Orientation toward modern physical theory, an, M. J. Walker, 27

Our responsibilities as scientists, J. R. Nielsen, 65

Painting, music, and sunshine (L), D. M. Pratt, 211

Pan-Indian culture of Oklahoma, J. H. Howard, 215

Pillars of Science (verse), T. King, 252

Purity, body, and flavor: the applied scientist (L), S. Ross and R. C. Hackman, 213

Radiocarbon dating in the light of stratigraphy and weathering processes, C. B. Hunt, 240

Significant scientific discoveries by medical students, W. C. Gibson, 22

Some scientific aspects of the urban air pollution problem, L. B. Hitchcock and H. G. Marcus, 10

Soviet cosmology and communist ideology, M. W. Mikulak, 167

Structure of a classic raw material, H. H. Bosshard, 224

Usefulness of test items that involve finding a pattern in data: a reply (L), G. C. Helmstadter, 209

What is wrong with PI? (L), J. T. Mitchell, 158

What's happening to our glaciers! W. A. Long, 57

Analytic Subject Index

AAAS affairs, 51–56, 104–108, 109–114, 159–160, 310–318

Acculturation, among Oklahoma Indians, 215–220

Aerosols, as air pollutants, 10, 12, 17

Agricola, Georgius, and influence on science, 253–254

Agriculture, place of soil in, 173–182

Air, and radioactive materials, 267–268

Air pollutants, analysis of, 10–18

Air pollution, scientific aspects of, 10–21, 158

Airglow, 93

Aldehydes, as air pollutants, 17

Alkali, in old Italian violin varnish, 223

Anesthesia, discoveries in, 23

Anthropology, in the Pacific islands, 3, 7

Archeology, and radiocarbon dating, 241

Architectural design, as compared with structure of living things, 286–299

Arizona, soil in, 175, 178

Astronomy, Gerasimovich and, 167

Atom, experiments with, 33–37

Atomic bomb. *See* Nuclear energy

Bartòk, Béla, and his fundamental chord, 163

Beetle, in ecological experiments, 273–275

Bernard, Claude, and investigations in digestion, 24

Betula verrucosa, structure of, 230–232

Billings, John S., and study of epilepsy, 26

Biological design, 286–299

Biology, as a basis for ethics, 138–146; as a basis for society, 303–309

INDEX TO VOLUME 81 (JULY–DECEMBER 1955)

(Note: In all divisions of this index, the letter (L) following a title indicates a letter to the editors.)

Title Index of Articles and Letters

AAAS affairs: AAAS committees and representatives for 1955, 106; AAAS-Rosenthal award for cancer research, 56; Advantages of an Atlanta meeting, Board of Directors, 104; Amendments to the AAAS constitution, D. Wolfle, 317–318; Association finances, H. Nussbaum, 314–316; Cooperative Committee on the Teaching of Science and Mathematics, 109; Director for science teaching improvement program, M. H. Ingraham, 160; Hotel headquarters and housing, Atlanta meeting, R. L. Taylor, 104; Preliminary announcement of Atlanta meeting, R. L. Taylor, 51; Preview of 122nd meeting, Atlanta, Georgia, R. L. Taylor, 310–314; Theobald Smith award in the medical sciences, 108; Traveling science libraries for small high schools, J. A. Behnke, 159

Agricola's position in science, H. C. and L. H. Hoover, 253

Are there rules for writing history of chemistry? A. J. Ihde, 183

Beauty and the beast: life and the rule of order, P. Weiss, 286

Changing place of soils in agricultural production, R. W. Simonson, 173

City neighborhood and village, R. Neutra, 38

Climatic contrasts in the United States, S. S. Visher, 115

Concerning the nature and nurture of genius, S. L. Pressey, 123

Dandelions (L), M. J. Haga, 158

Does biology afford a sufficient basis for ethics? P. Romanell, 138

Ecological experimentation with animal populations, T. Park, 271

Effects of nuclear weapons testing, G. M. Dunning, 265

Equal temperament and the thirty-one-keyed organ, A. D. Fokker, 161

Feuerbach, Karl Wilhelm, mathematician, 71

Fortress city of Constantine, Algeria, B. E. Thomas, 130

Garter snake, the, C. C. Carpenter, 248

Herodotus on the subject matter of economics, J. J. Spengler, 276

Homeostasis, society, and evolution: a critique, J. Henry, 300

How does rock break? F. C. Bond, 196

Human background of Pacific science, A. Spoehr, 3

Improving science teaching, 109

International Geophysical Year, H. S. Jones, 94

Lettuce industry of the Salinas Valley, P. F. Griffin and C. L. White, 77

Lost art of Strad varnish, J. Michelman, 221

Medals of the Royal Society of London, E. F. Lange and R. F. Buyers, 85

Mendel and the rediscovery of his work, E. O. Dodson, 187

Modern science and refutation of the paradoxes of Zeno, A. Grünbaum, 234

More on air pollution (L), L. B. Hitchcock and H. G. Marcus, 158

One world—or two? (L), J. C. Crumbaugh, 212

Orientation toward modern physical theory, an, M. J. Walker, 27

Our responsibilities as scientists, J. R. Nielsen, 65

Painting, music, and sunshine (L), D. M. Pratt, 211

Pan-Indian culture of Oklahoma, J. H. Howard, 215

Pillars of Science (verse), T. King, 252

Purity, body, and flavor: the applied scientist (L), S. Ross and R. C. Hackman, 213

Radiocarbon dating in the light of stratigraphy and weathering processes, C. B. Hunt, 240

Significant scientific discoveries by medical students, W. C. Gibson, 22

Some scientific aspects of the urban air pollution problem, L. B. Hitchcock and H. G. Marcus, 10

Soviet cosmology and communist ideology, M. W. Mikulak, 167

Structure of a classic raw material, H. H. Bosshard, 224

Usefulness of test items that involve finding a pattern in data: a reply (L), G. C. Helmstadter, 209

What is wrong with PI? (L), J. T. Mitchell, 158

What's happening to our glaciers! W. A. Long, 57

Analytic Subject Index

AAAS affairs, 51–56, 104–108, 109–114, 159–160, 310–318

Acculturation, among Oklahoma Indians, 215–220

Aerosols, as air pollutants, 10, 12, 17

Agricola, Georgius, and influence on science, 253–254

Agriculture, place of soil in, 173–182

Air, and radioactive materials, 267–268

Air pollutants, analysis of, 10–18

Air pollution, scientific aspects of, 10–21, 158

Airglow, 93

Aldehydes, as air pollutants, 17

Alkali, in old Italian violin varnish, 223

Anesthesia, discoveries in, 23

Anthropology, in the Pacific islands, 3, 7

Archeology, and radiocarbon dating, 241

Architectural design, as compared with structure of living things, 286–299

Arizona, soil in, 175, 178

Astronomy, Gerasimovich and, 167

Atom, experiments with, 33–37

Atomic bomb. *See* Nuclear energy

Bartòk, Béla, and his fundamental chord, 163

Beetle, in ecological experiments, 273–275

Bernard, Claude, and investigations in digestion, 24

Betula verrucosa, structure of, 230–232

Billings, John S., and study of epilepsy, 26

Biological design, 286–299

Biology, as a basis for ethics, 138–146; as a basis for society, 303–309

Black, Joseph, and discovery of carbon dioxide, 22
Blake, James, and a theory for grouping of the elements, 22
Blood, early studies of, 25
Blood pressure, early studies of, 25
Bogorodsky, A. F., and theory of red-shift, 171
Bohr, Niels, and model of the hydrogen atom, 33, 34; and principle of complementarity, 66
Boulder Glacier, 59
Brahe, Tycho, and measurement of the solar system, 27
Brain, early experiments on, 25
British Royal family, medals of, 86–87, 88
Broglie, de, Louis, wavelength of an electron, 34, 35
Buchanan, George, medal of, 89, 90
Burma, management of soil in, 178, 179

Cambium, 224, 226
Cannon, W. B., and investigations of digestive tract by x-rays, 24; and theory of homeostasis, 138, 300–302
Carbon dioxide, discovery of, 22
Carbon monoxide, as an air pollutant, 16
Carnegie Corporation of New York, and science teaching program, 110
Cascade Mountains, glaciers in, 57–64
Ceylon, management of soil in, 173, 177
Chemistry, writing the history of, 183–186
Chernozem soil, 175, 176, 178, 180
China, management of soil in, 177, 179
Circle, nine-point, 71–76
Circulation, Harvey's investigations on, 25
Citrus fruits, management of soils for, 173, 174
City planning, and air pollution, 14, 15, 21; and the neighborhood, 38–41
Clarke, William E., and experiments with ether, 23
Clay, in old Italian violin varnish, 222
Climate, contrasts in, in the United States, 115–122; as influenced by glaciers, 57–64
Coleman Glacier, 63
Combustion, and air pollution, 15
Comminution, rock, third theory of, 196–198
Communication, of science, 66–67
Constantine, Algeria, as a fortress and trade center, 130–137
Cooperative Committee on the Teaching of Science and Mathematics, AAAS, 109–114, 160
Coordinates, theory of homogeneous, 75
Copernicus, and study of the solar system, 27
Copley, Godfrey, medal of, 85–86, 88
Cordus, Valerius, and experiments with ether, 23
Cornell University, and program of science history, 185
Correns, Carl, and rediscovery of Mendel's work, 192–195
Crop rotation, in England, 176

Dandelion, 158
Darwin, Charles, and Mendel's theory of heredity, 194; medal of, 87, 89, 90
Davy, Humphry, and discoveries in anesthesia, 23; medal of, 87, 88
Deason, H. J., 159
De Re Metallica, 253–254
Deming Glacier, 59

Easton Glacier, 59, 60
Ecology, experiments in, 271–275
Economics, as described by Herodotus, 276–285
Eddington, A. S., and concept of the universe, 167, 170
Education, of gifted children, 123–129; of science and mathematics teachers, 109–114
Ehrlich, Paul, and side-chain theory, 26
Eichling, C. W., and meeting with Mendel, 190–192, 195
Eigenson, M. S., and concept of the universe, 171
Einstein, A., and concept of the universe, 167, 168; and relativity, 29, 30, 32; Soviet denunciation of, 169, 170
Einthoven, Willem, and invention of electrocardiograph, 23
Electrocardiograph, invention of, 23
Emerson, A. E., and theory of biology as a basis for ethics, 138–146; and theory of homeostasis, 303
Engels, F., and Soviet cosmology, 169
Entiat Valley, 61–62
Eötvös, Jozsef, and measurement of equality in masses, 28
Epilepsy, and Billings' study of, 26
Equal temperament, in music, 161–166
Erosion, and soil, 175, 176
Ether, experiments with, 23
Ethics, as related to biology, 138–146
Ethnology, of Oklahoma Indians, 215–220
Euler, Leonhard, and the harmonic seventh, 164
Europe, soils in, 176, 177, 179
Evolution, and design in living things, 286–299; and homeostasis, 300–309

Fallout. *See* Radioactivity
Feuerbach, Karl W., 71–76
Fibonacci series, 289
Fish, and radioactive materials, 267–268
Florida, soil in, 173, 174,
Form, analogies of, 172, 286–299
Freud, S., as neuroanatomist, 25
Friedmann, A., and concept of the universe, 167, 168
Fungia, 172

Gamow-Alpher-Herman theory, on chemical composition of the universe, 168
Gastropod, and boring sponge, 64
Gene mutation, from radioactivity, 268–269
Genetics, and Mendel's contributions to, 187–195; and radioactivity, 268–269
Genetics Society of America, 195
Genius, development of, 123–129
Gennari, Francesco, and experiments on the brain, 25
Geological age, 240–247
Geology, of glaciers, 57–64
Geometry, Feuerbach's contribution to, 71–76; and Zeno's paradox in, 234–236
Geophysical Year, International, 91–94
Gerasimovich, Boris, and astronomy in U.S.S.R., 167
Glaciers, as influence on climatic changes, 57–64
Golden mean, 289

Haba, Aloys, and experiments in musical system, 163
Harmonic seventh, in music, 163, 164
Harvard University, and program of science history, 185
Harvey, William, and discoveries in circulation, 25
Heisenberg principle of indeterminacy, 35, 36
Helmholtz, H. von, and investigation of nerve fibers, 25
Herodotus, and economics, 276–285
Hieracium, Mendel's experiments with, 189, 194
History of chemistry, writing of, 183–186
History of Herodotus, The, 276–285
Holland, irrigation of soil in, 176
Homeostasis, as applied to ethics, 138–146; and society and evolution, 300–309
Hopkins, F. G., and experiments in nutrition, 22, 23
Hubble, E. P., and study of red-shift, 168
Hughes, David E., medal of, 89, 90
Human beings, and air pollution, 18; and science in the Pacific islands, 3–9

Huygens, C., and harmonic discoveries, 162, 163
Hydrocarbons, as air pollutants, 12, 16, 17
Hydrogen fluoride, as an air pollutant, 11

Japan, irrigation of soil in, 176, 177
Jeans, James, and concept of the universe, 167, 170
Jenner, Edward, and vaccination, 26

Kepler, J. and study of positions of the planets, 27–28
Kick, F., and theory of rock breakage, 196, 197

India, management of soil in, 177, 179, 180, 181
International Association of Wood Anatomists, 232
Italian violin varnish, rediscovery of art of making, 221–223

Laennec, René, and study of peritonitis, 26
Lane, Charles E., 64
Langerhans, Paul, and study of the pancreas, 25
Lead, as an air pollutant, 17
Lemaître, G., and concept of the universe, 167, 169, 170
Lettuce, production and distribution of, 77–84
Liesegang bands, 294
Living things, order in structure of, 286–299
Loam, 174, 178
Lorentz transformation, development of, 29
Lorentz-Fitzgerald contraction, 30
Los Angeles, air pollution in, 10, 15, 16, 17
Lvov, V. E., and Soviet science, 170
Lyman Glacier, 57–64

MacCallum, W. G., and studies of malaria, 26
Macrophysics, 28–29
Mason, Stephen F., as science historian, 184
Mathematics, Feuerbach's contribution to, 71–76; and Zeno's paradoxes in, 234–239
Mayor, John, 160
Medals, of the Royal Society of London, 85–90
Medical students, scientific discoveries of, 22–26
Melanesia, development of science in, 4
Mendel, G., biography of, 187–195
Michelson-Morley experiment, 30, 31
Micronesia, development of science in, 4, 5, 6,
Microorganisms, and radiocarbon dating, 246
Microphysics, 28–29, 33
Mineralogy, and Agricola, 253–254
Moose, cow and calf as subjects of photography, 37
Morton, W. T. G., and anesthesia experiments, 23
Motion, and Zeno's paradox in, 236–238
Mount Baker, 57–64
Mount Rainier, 60
Mushroom coral, 172
Music, and development of the 31-keyed organ, 161–166

Nägeli, K. W. von, and correspondence with Mendel, 189, 190, 194
National Science Foundation, and traveling science libraries, 159
Nautilus, chambered, 299
Nerve fibers, early investigations on, 25
Neurology, Freud's studies in, 25
Newton, I., and laws of motion, 28, 32, 34
Nisqually Glacier, 60, 63
Nitric acid formation, resulting from nuclear detonation, 269–270
Nitric oxide, as an air pollutant, 11
Nitrogen dioxide, as an air pollutant, 11
Nomenclature, of chemical elements, 158; for wood, 232
North Carolina, soil in, 174, 178
Nuclear energy, effects of tests with, 265–270; and responsibility of scientists, 67–68
Nutrition studies, by F. G. Hopkins, 23

Ohio State University, acceleration program at, 127–128
Oil droplets, as air pollutants, 17
Okinawa, management of soil in, 179
Oklahoma, pan-Indianism in, 215–220
Organ, 31-keyed, and equal temperament, 161–166

Pacific islands, human beings and development of science in, 3–9
Pacific Northwest, glaciers in, 57–64
Pacific Science Board, 3
Paleontology, and radiocarbon dating, 241
Pan-Indianism, among Oklahoma tribes, 215–220
Paradoxes of Zeno, 234–239
Parathyroid glands, discovery of, 25
Parsons, T., and theory of homeostasis, 303–304
Peas, Mendel's experiments with, 189, 191, 192
Pennsylvania, University of, Smith Collection at, 184
Peritonitis, study of by Laennec, 26
Peyote, among Oklahoma Indians, 218
Pfeffer, Wilhelm, and discovery of osmosis, 192, 193
Physical theory, development of, 27–37
Pinus strobus, structure of, 227–230
Planck's constant, 33, 34
Plant crossing, Mendel's experiments with, 189
Plants, and air pollution, 19; and radiocarbon dating, 244–246; and use-suitability of soils, 178
Plutonium, naming of, 158
Podzolic soils, 175, 176, 178, 179, 180
Poiseuille, J. L. M., and development of early mercury manometer, 25
Polynesia, development of science in, 4, 6
Population, animal, 271–275; in Herodotus' time, 279–280; and responsibility of scientists, 69–70
Positivism, 138–146
Precipitation contrasts in United States, 120–122
Precocity, encouragement of, 123–129
Priestley, J., as a science historian, 184
Purkinje, J., and theory of color vision, 25

Quantum theory, and the paradoxes of Zeno, 238–239

Radioactivity, effects of, 265–270
Radiocarbon dating, as influenced by stratigraphy and weathering, 240–247
Rawson, D. S., 37
Rayleigh, J. W. S., and experiments in microphysics, 33
Red-shift, of distant galaxies, 168, 169, 171
Relativity, and development of physical theory, 29–33; Soviet rejection of, 168–170
Remak, R., and investigation of nerve fibers, 25
Resins, in old Italian violin varnish, 221–222
Riemann, G. F., and theory of space, 31
Rittinger, P. R. von, and theory of rock breakage, 196, 197
Rock, theories of breakage of, 196–198
Rothamsted Experimental Station, 180
Royal Society of London, medals of, 85–90
Ruggieri, F., and varnish for 'cello, 221
Rumford, Count, medal of, 86, 88
Rummel River, and its importance to Constantine, 135
Rutherford, E., and the hydrogen atom, 34

Salinas Valley, lettuce production in, 77–84
Sandstrom, I., and discovery of parathyroid glands, 25

Sarton, G., and writing science history, 186
Schroedinger's wave equation, 35, 36
Science, attitude of Communism to, 167–172; and government, 68; history of, 27–37; internationality of, 65–70; in the Pacific islands, 3–9; and refutation of paradoxes of Zeno, 234–239; and society, 65–70; 138–146
Science Teaching Improvement Program, 109–114
Scientific discovery, by medical students, 22–26
Scientific method, and ethics, 138–146
Scientist, responsibility of, 65–70; and the training of teachers, 110–111
Seaborg, G. T., 158
Semantics, and ethics, 139–140, 145
Sherrington, C., and research on the brain, 25
Side-chain theory, development of, 26
Silicon, in old Italian violin varnish, 222
Sitter, de, Willem, and concept of the universe, 167, 168
Smith, E. F., as historian of chemistry, 183, 184
Smog, analysis of, 11
Snake, garter, 248–252
Snow Creek Glacier, 57–64
Society, and homeostasis, 300–309; and science, 65–70, 138–146
Soils, management and productivity of, 173–182
Sound, Young's theories on, 24
South Pacific Commission, 7
Soviet cosmology, 167–172
Sponge, boring, 64
Stratigraphy, and radiocarbon dating, 240–244
Sulfur dioxide, as an air pollutant, 11, 17
Sunshine contrasts in United States, 120
Swammerdam, Jan, and discovery of red blood cells, 25
Sylvester, J. J., medal of, 89, 90

Tartini, G., and the harmonic seventh, 164
Teachers, shortage of, 109–114
Temperature contrasts in United States, 115–120
Tennessee, soil in, 174, 179
Thompson, Benjamin, medal of, 86, 88
Tragopon, 158
Trust Territory of the Pacific Islands, 8
Tschermak, E. von, and rediscovery of Mendel's work, 192–195

Universe, concepts of, 167–172
U. S. Office of Education, and traveling science libraries, 159
U.S.S.R. Academy of Sciences, resolutions of, 170

Vaccination, Jenner's work on, 26
Varnish, preparation of, for stringed instruments, 221–223
Virginia, soil in, 174, 178
Vision, color, Purkinje's theory of, 25; Young's theory of, 23
Vries, De, Hugo, and rediscovery of Mendel's work, 192–195

Walden, P., as a science historian, 183
Water, and radioactive materials, 267–268
Weather, as affected by radioactivity, 269
Weathering, and radiocarbon dating, 244–246
Wien, W., and experiments in microphysics, 33
Winchester, A. M., 172, 299
Wisconsin, University of, and program of science history, 185
Wood, structure of, 224–233
World Days, 93

Young, T., and theories of light, color vision, and sound, 23–24

Zeno, paradoxes of, 234–239
Zhdanov, A. A., and influence on Soviet arts and sciences, 170

Author Index

AAAS Board of Directors, Advantages of an Atlanta meeting, 104
AAAS Cooperative Committee on the Teaching of Science and Mathematics, Improving science teaching, 109
Adams, M. H., Book review, 147, 320
Allen, V. T., Book review, 99

Behnke, J. A., Traveling science libraries for small high schools, 159
Bergmann, P. G., Book review, 154
Bidney, D., Book review, 48
Blomquist, H. L., Book review, 97
Bok, B. J., Book review, 42
Bond, F. C., How does rock break? 196
Bordne, E. F., Book review, 43
Bossert, R. G., Book review, 204
Bosshard, H. H., Structure of a classic raw material, 224
Braibanti, R., Book review, 154, 205
Brooks, C. McC., Book review, 260
Bumstead, C. H., Book review, 255
Buyers, R. F. *See* Lange, E. F., 85

Carpenter, C. C., The garter snake, 248
Carpenter, C. R., Book review, 321
Caspari, E., Book review, 201
Cohen, I. B., Book review, 202, 319
Coleman, J. S., Book review, 325
Corson, D. R., Book review, 258
Crumbaugh, J. C., One world—or two? (L), 212

Dodson, E. O., Mendel and the rediscovery of his work, 187
Drury, W. H., Jr., Book review, 321
Dunning, G. M., Effects of nuclear weapons testing, 265

Elder, L. W., Jr., Book review, 147
Evans, C., Book review, 150

Fokker, A. D., Equal temperament and the thirty-one-keyed organ, 161
Fosberg, F. R., Book review, 97
Frank, P. W., Book review, 259
Freedman, J., Book review, 201
Fried, M. H., Book review, 199
Frings, H., Book review, 260
Fuchs, V. E., Book review, 202

Galdston, I., Book review, 43
Gardner, T. S., Book review, 95
Gibson, W. C., Significant scientific discoveries by medical students, 22
Gillin, J., Book review, 261
Gregg, A., Book review, 44
Griffin, P. F., and C. L. White, Lettuce industry of the Salinas Valley, 77
Grünbaum, A., Modern science and refutation of the paradoxes of Zeno, 234
Guggenbuhl, L., Karl Wilhelm Feuerbach, mathematician, 71
Gustad, J. W., Book review, 151

Hackman, R. C., *See* Ross, S., 213
Haga, M. J., Dandelions (L), 158
Hance, W. A., Book review, 204
Hansen, R. J., Book review, 47
Hardin, G., Book review, 320
Hastings, D. W., Book review, 260
Hedgpeth, J. W., Book review, 100
Helmstadter, G. C., Usefulness of test items that involve finding a pattern in data: a reply (L), 209
Henry, J., Homeostasis, society, and evolution: a critique, 300
Hitchcock, F. A., Book review, 321
Hitchcock, L. B., and H. G. Marcus, More on air pollution (L), 158; Some scientific aspects of the urban air pollution problem, 10
Hockensmith, R. D., Book review, 204
Holt, R. R., Book review, 95
Hoover, H. C., and L. H. Hoover, Agricola's position in science, 253
Hoover, L. H., *See* Hoover, H. C.
Howard, J. H., Pan-Indian culture of Oklahoma, 215
Hunt, C. B., Radiocarbon dating in the light of stratigraphy and weathering processes, 240

Ihde, A. J., Are there rules for writing history of chemistry? 183
Ingraham, M. H., Director named for AAAS science teaching improvement program, 160

Jacobs, W. P., Book review, 155
Jenkins, G. L., Book review, 98
Jones, H. S., International Geophysical Year, 91

Kells, L. M., Book review, 322
Kelson, K. R., Book review, 149
King, T., The pillars of science, 252

Lange, E. F., and R. F. Buyers, Medals of the Royal Society of London, 85
Laton, A. D., Book review, 259
Linnell, A. P., Book review, 323
Long, W. A., What's happening to our glaciers! 57
Lovell, J. D., Book review, 319

Manwell, R. D., Book review, 199
Marcus, H. G. *See* Hitchcock, L. B., 10, 158
Martin, P. S., Book review, 150
Mather, K. F., Book review, 256
Mayor, J. R., Book review, 100
Mellink, M. J., Book review, 155
Mellon, M. G., Book review, 48
Michelman, J., Lost art of Strad varnish, 221
Michener, C. D., Book review, 149
Mikulak, M. W., Soviet cosmology and communist ideology, 167
Millar, C. E., Book review, 95
Mitchell, J. T., What is wrong with PI? (L), 158
Morton, C. V., Book review, 324
Mullins, L. J., Book review, 203

Neutra, R., City neighborhood and village, 38
Newth, D. R., Book review, 148
Nielsen, J. R., Our responsibilities as scientists, 65
Nowak, F. T., Book review, 45
Nussbaum, H., Association finances, 314

O'Rourke, J. D., Book review, 203

Papazian, H. P., Book review, 318
Park, T., Ecological experimentation with animal populations, 271
Paton, R. F., Book review, 205
Peller, S., Book review, 47
Penndorf, R. B., Book review, 44
Pitelka, F. A., Book review, 46, 99
Pratt, D. M., Painting, music, and sunshine (L), 211
Prescott, G. W., Book review, 257
Pressey, S. L., Concerning the nature and nurture of genius, 123

Recktenwald, L. N., Book review, 101
Reed, E. K., Book review, 152
Retherford, R. C., Book review, 42
Rhoads, D. P., Book review, 154
Rogers, C. H., Book review, 148
Roller, D. H. D., Book review, 261
Romanell, P., Does biology afford a sufficient basis for ethics?, 138
Rosenthal, A., Book review, 322
Ross, S., and R. C. Hackman, Purity, body, and flavor: the applied scientist (L), 213

Schmidt, K. P., Book review, 152
Sears, P. B., Book review, 149, 200
Seifert, H. S., Book review, 153
Shapley, H., Book review, 99
Simonson, R. W., Changing place of soils in agricultural production, 173
Smart, R. F., Book review, 203
Smith, A. G., Book review, 200
Smith, G. M., Book review, 320
Spengler, J. J., Herodotus on the subject matter of economics, 276
Spoehr, A., Human background of Pacific science, 3
Stephenson, R. J., Book review, 255
Stirling, M. W., Book review, 101
Stoll, R. R., Book review, 45

Taylor, R. L., Hotel headquarters and housing, Atlanta meeting, 104; Preliminary announcement of Atlanta meeting, 51; Preview of 122nd meeting, Atlanta, Georgia, 310
Thomas, B. E., Fortress city of Constantine, Algeria, 130
Thomas, D. S., Book review, 96

Visher, S. S., Climatic contrasts in the United States, 115

Wade, J. S., Book review, 46, 205
Walker, M. J., An orientation toward modern physical theory, 27
Waltman, C. S., Book review, 153, 258
Warbasse, J. P., Book review, 98
Ward, R., Book review, 97
Weiss, P., Beauty and the beast: life and the rule of order, 286
Wever, E. G., Book review, 256
White, C. L. *See* Griffin, P. F., 77
White, M. W., Book review, 323
Wolfle, D., Amendments to the AAAS constitution, 317
Wood, A. E., Book review, 200

Zemansky, M. W., Book review, 261

Books Reviewed

Allen, S. W., *Conserving Natural Resources*, 149
Allport, F. H., *Theories of Perception and the Concept of Structure*, 255
Andrade, E. N. daC., *Sir Isaac Newton*, 323

Buchman, C. H., *Physics: a Descriptive Interpretation*, 205
Bailey, E. W., *See* W. E. Ritter, 152
Baker, R. H., *Astronomy*, 323
Ball, R. W. *See* Beaumont, R. A., 45
Barclay, C. N., *The New Warfare*, 205
Basin, H., *Plants without Flowers*, 320
Bates, M., *Prevalence of People*, 259
Beaumont, R. A., and R. W. Ball, *Introduction to Modern Algebra and Matrix Theory*, 45
Bellinger, L. *See* J. Bird, 150
Benford, R. J., *Doctors in the Sky*, 260
Berry, A. J., *From Classical to Modern Chemistry*, 147
Bett, W. R., Ed., *The History and Conquest of Common Diseases*, 48
Bird, J., and L. Bellinger, *Paracas Fabrics and Nazca Needlework, 3rd century* B.C.–*3rd century* A.D., 150
Boyde, R. L. F., and J. J. Seaton, Eds., *Rocket Exploration of the Upper Atmosphere*, special supplement (vol. 1) to the *Journal of Atmospheric and Terrestrial Physics*, 44
Brandt, R. B., *Hopi Ethics: a Theoretical Analysis*, 48
Breneman, W. R., *Animal Form and Function*, 148
Buxton, P. A., *Animal Life in Deserts*, 200

Clark, J. G. D., *Excavations at Star Carr*, 155
Clegg, H., Ed., *Proceedings of the First World Conference on Medical Education*, 44
Colbert, E. H., *Evolution of the Vertebrates*, 200
Coleman, J. A., *Relativity for the Layman*, 154
Crosser, P. K., *The Nihilism of John Dewey*, 98

Darlington, C. D., *The Facts of Life*, 318
DeCoursey, R. M., *Human Organism*, 259
deVille, E., *Electricity*, 261
Diffor, J. W. *See* Horkheimer, M. F., 325
Downes, H. R., *The Chemistry of Living Cells*, 203

Ewing, G. W., *Instrumental Methods of Chemical Analysis*, 48

Fernald, H. T., and H. H. Shepard, *Applied Entomology*, 205
Fieser, L. F., *Experiments in Organic Chemistry*, 204
Fisher, J., *Bird Recognition 3*, 321; *A History of Birds*, 46
Flint, R. F., *See* Longwell, C. R., 201
Forest, H. S., *Handbook of Algae*, 257
Freud, S., *The Origins of Psychoanalysis*, 95

Gatland, K. W., *Development of the Guided Missile*, 153
Grings, W. W., *Laboratory Instrumentation in Psychology*, 101
Gross, F., *Foreign Policy Analysis*, 154
Gruenberg, S. M., Ed., *The Encyclopedia of Child Care and Guidance*, 324

Hare, R., *Pomp and Pestilence*, 320
Harris, N. C., *Introductory Applied Physics*, 323
Hawkes, J., *Man on Earth*, 319
Helmholtz, H. L. F., *On the Sensations of Tone as a Physiological Basis for the Theory of Music*, 256
Hemmerling, E. M. *See* Harris, N. C., 323
Henry, A. F., and J. F. Short, Jr., *Suicide and Homicide*, 96
Herskovits, M. J., *Cultural Anthropology*, 199
Hill, C. M. *See* Scott, C. W., 100
Hoebel, E. A., J. D. Jennings, E. R. Smith, Eds., *Readings in Anthropology*, 200
Hoffmeister, D. F. *See* Zim, H. S., 325
Holttum, R. E., *Plant Life in Malaya*, 325
Horkheimer, J. F., *Educators Guide to Free Films*, 325
Hughes, E., *Fundamentals of Electrical Engineering*, 42

Ingles, L. G., *Mammals of California and Its Coastal Waters*, 149
Institut National de la Recherche Agronomique, *L'Acoustique des Orthoptères*, 260
Intercollege Committee on the Evaluation of Science Objectives of the Cooperative Study of Evaluation in General Education, P. L. Dressel, director, *Science Reasoning and Understanding*, 202
Irvine, W., *Apes, Angels, and Victorians*, 320

Jacks, G. V., *Soil*, 95
Jennings, J. D. *See* Hoebel, E. A., 200
Judd, N. M., *The Material Culture of Pueblo Bonito*, 150

Kaplan, I., *Nuclear Physics*, 258
Karn, H. W., and J. Weitz, *An Introduction to Psychology*, 151
Kuhn, A., *Grundriss der Allgemeinen Zoologie*, 201
Kuiper, G. P., Ed., *The Earth as a Planet*, vol. II of *The Solar System*, 42

Lauffer, M. A. *See* Smith, K. M., 147
Lautenschlager, C. L., *50 Jahre Arzneimittel Forschung*, 98
Leopold, A. C., *Auxins and Plant Growth*, 155
Linton, R., *Tree of Culture*, 261
Longwell, C. R., and R. F. Flint, *Introduction to Physical Geology*, 201

Marshall, N. B., *Aspects of Deep Sea Biology*, 100
Marshall, R. E., *Cherries and Cherry Products*, 153
Merrill, A. F. *See* Severud, F. N., 47
Millar, C. E., *Soil Fertility*, 204
Moore, P., *A Guide to the Planets*, 99
Morley, D. W., *The Evolution of an Insect Society*, 199
Murie, O. J., *A Field Guide to Animal Tracks*, 99

Needham, J. G., and M. J. Westfall, Jr., *A Manual of the Dragonflies of North America (Anisoptera)*, 149

Paszkiewicz, H., *The Origin of Russia*, 45
Peterson, E. T., *Big Dam Foolishness*, 43
Pfeiffer, J., *Human Brain*, 260
Phillips, W., *Qataban and Sheba*, 256
Pollack, P., *Your Career in Physics*, 325
Price, D. J., Ed., *The Equatorie of the Planetis*, 319

Richardson, J. S., Ed., *School Facilities for Science Instruction*, 322
Richardson, R. S., *Exploring Mars*, 95
Ritter, W. E., *Charles Darwin and the Golden Rule*, E. W. Bailey, Ed., 152
Rockwell, J. *See* R. H. Rockwell, 148
Rockwell, R. H., with J. Rockwell, *My Way of Becoming a Hunter*, 148
Roeder, W. S., *Dictionary of European History*, 325
Roller, D., and D. H. D. Roller, *Development of the Concept of Electric Charge*, 255
Roller, D. H. D. *See* Roller, D., 255

Schorger, A. W., *The Passenger Pigeon*, 46
Schwartz, G. M., *Minnesota's Rocks and Waters*, 324

Scott, C. W., and C. M. Hill, Eds., *Public Education under Criticism*, 100
Seaton, M. J. *See* Boyd, R. L. F., 44
Severud, F. N., and A. F. Merrill, *The Bomb, Survival, and You*, 47
Shaver, J. M., *Ferns of Tennessee*, 324
Shepard, H. H. *See* Fernald, H. T., 205
Sheps, C. G., and E. E. Taylor, *Needed Research in Health and Medical Care*, 43
Shoemaker, J. S., *Small-Fruit Culture*, 258
Short, J. F., Jr. *See* Henry, A. F., 96
Sinnott, E. W., and K. S. Wilson, *Botany Principles and Problems*, 203
Smith, E. R. *See* Hoebel, E. A., 200
Smith, G. M., *Cryptogamic Botany*, vol. I, *Algae and Fungi;* vol. II, *Bryophytes and Pteridophytes*, 97
Smith, K. M., and M. A. Lauffer, *Advances in Virus Research*, 147
Steiner, P. E., *Cancer: Race and Geography*, 154
Swezey, O. F., *Forest Entomology in Hawaii*, 97

Taylor, E. E. *See* Sheps, C. G., 43
Thiel, G. A. *See* Schwartz, G. M., 324
Tyler, J., *Cells and Societies*, 321

Voskuil, W. H., *Minerals in World Industry*, 204

Wallis, R. S. *See* Wallis, W. D., 101
Wallis, W. D., and R. S. Wallis, *The Micmac Indians of Eastern Canada*, 101
Walton, E. W. K., *Two Years in the Antarctic*, 202
Watkins, H., *Time Counts*, 258
Weitz, J. *See* H. W. Karn, 151
Westfall, M. J. *See* J. G. Needham, 149
White, H. E., *Descriptive College Physics*, 261
Williams, T. I., *The Elements of Chromatography*, 203
Wilson, K. S. *See* Sinnott, E. W., 203
Wilson, R. M. *See* Price, D. J., 319
Woodbury, R. B., *Prehistoric Stone Implements of Northeastern Arizona*, 152
World Health Organization, *Poliomyelitis*, 97
Wylie, C. R., Jr., *Plane Trigonometry*, 322

Youmans, W. B., *Human Physiology*, 321

Zim, H. S., *Mammals*, 325